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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,512	09/23/2005	Hiromasa Sakai	040302-0503	1973

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EXAMINER	
BARROW, AMANDA J	
ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
08/05/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/550,512	**Applicant(s)** SAKAI, HIROMASA	
	Examiner AMANDA BARROW	**Art Unit** 1795	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 July 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1 and 6-11*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1795

/AMANDA BARROW/
Examiner, Art Unit 1795

Continuation of 11. does NOT place the application in condition for allowance because:

Applicant argues that the combination of Noetzel, Fujita and Keskula do not disclose or suggest all of the features of claims 1, 10 and 11. Specifically, Applicant argues that while Noetzel discloses an apparatus for controlling a fuel cell system in which a power switching device selectively connects and disconnects a fuel cell voltage to at least one load, depending at least in part on an operating fuel cell stack temperature, voltage, and/or current (paragraph 10), Noetzel does not disclose or suggest a control device in which the said predetermined current or voltage threshold is obtained from predetermined current/voltage characteristics showing a relationship between a voltage value of a fuel cell stack and a current value, and Fujita and Keskula do not remedy this deficiency.

Reponse: The combination of Noetzel with Fujita and Keskula render the claim obvious. As pointed out by the Applicant and in the Examiner's rejection, Noetzel teaches a control device (power conditioner 14) where the run permission section (power switching device 42) provides the vehicle with run permission when the voltage value of the fuel cell stack is equal to or more than a predetermined value: "The power switching device selectively connects and disconnects the fuel cell voltage to at least one load dependent at least in part.... by the fuel cell voltage" (paragraph 10). Alternatively, the vehicle is provided with a run permission when the electric current value of the fuel cell stack is equal to or more than a predetermined value (paragraph 10). The control device (power conditioner 14) determines the predetermined value in dependence upon an electric current value or a voltage value appearing when the fuel cell stack generates electric power (paragraph 26).

Noetzel does not teach how the predetermined voltage or current value is found and only states that these predetermined voltage and current values are used to determine whether or not a vehicle is provided with a run permission. Fujita and Keskula remedy this deficiency as Fujita discloses that voltage-current characteristic maps are known in the art and that an output voltage can be determined from the run available electric current and vise versa (paragraphs 173 and 174). Figure 11 of Fujita illustrates the voltage-current characteristic maps which show the relationship between the current and voltage of the fuel cell as does Figure 12. Additionally, Keskula discloses that a fuel cell stack can be characterized by a voltage at a given current or conversely, as a current at a given voltage. These are called polarization curves and a family of these can be made for a given set of operating conditions as the relationship between voltage and current can vary according to the operating conditions (paragraphs 27-29).

Thus, Noetzel discloses providing run permission to a vehicle based on predetermined voltage and/or current values, and Fujita/Keskula discloses the use of voltage-current characteristic maps to obtain these values. Therefore, it would have been obvious to a person of ordinary skill in the art to modify the invention of Noetzel by obtaining the predetermined voltage and/or current value using voltage-current characteristic maps as taught by Fujita/Keskula in order to obtain a proper current/voltage value as such values vary according to the operating conditions of the fuel cell (Keskula - paragraphs 27-29).

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